

### **REMARKS**

This is responsive to the Office Action mailed February 14, 2007, the response period to which extends through August 14, 2007, with a three-month extension, which is included with this paper.

#### **I. THE REJECTIONS**

The Examiner has rejected claims 14 and 40-45 under § 112, second paragraph, as being indefinite; rejected claims 1-11 and 34-45 under § 102(b) as being anticipated by Randell et al. U.S. 5,378,559 ('559); rejected claims 1-11, 15-18, 22, and 34-45 under § 102(a) as being anticipated by published PCT application WO 03/73530 ('530); rejected claims 12-14 under § 103(a) as being unpatentable over Randell et al. or WO '530; rejected claims 19-21 under § 103(a) as being unpatentable over Randell et al. or WO '530 in view of Urry U.S. 6,022,639; rejected claim 23 under § 103(a) as being unpatentable over Randell et al. or WO '530 in view of Durkot et al. U.S. 6,521,378 ('378); and rejected claims 24-33 under § 103(a) as unpatentable over Randell et al. or WO '530 in view of Moore et al. U.S. Pub. 2005/0106461 ('461). Reconsideration of the application is respectfully requested.

#### **II. § 112 REJECTION**

The Examiner has rejected claims 14 and 40-45 under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 14 has been amended to recite "said second electrode" and claims 40-45 have been amended to refer to the process of the claims from which they depend. Applicant submits that these corrections are adequate to overcome the § 112 rejection and its withdrawal is respectfully requested.

#### **III. § 102 REJECTIONS**

Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinen Fabrik GmbH v. American Hoist & Derrick Co.*, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). The Examiner bears the burden of establishing a prima facie case of anticipation based upon the prior art. *In re Sun*, 31 U.S.P.Q.2d 1451, 1453 (Fed. Cir. 1993) (unpublished). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic. M.P.E.P. § 2112; *In re Rijchaert*, 28 U.S.P.Q.2d 1955, 1957 (Fed.

Cir. 1993). In relying upon the theory of inherency, the Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *In re Levy*, 17 U.S.P.Q.2d 1461, 1464 (B.P.A.I. 1990). The Applicant asserts that the Examiner has not yet met his burden of establishing a prima facie case of anticipation with respect to the rejected claims.

**A. § 102(b) Rejection**

The Examiner has rejected claims 1-11 and 34-45 under 35 U.S.C. § 102(b) as being anticipated by Randell et al. '559. Specifically, the Examiner states that the anode of Randell et al. would inherently possess the yield strength and viscosity ranges recited in the claims of the instant application and notes the rheological modifier disclosed in the instant specification.

While the additive of Randell et al. may be *similar* to the composition disclosed, it is not the same and there is no evidence that the Randell et al. composition would have a yield stress less than  $350 \text{ N/m}^2$  and a preassembly viscosity less than  $12 \text{ N}\cdot\text{s/m}^2$  at a  $2 \text{ sec}^{-1}$  shear rate. Moreover, the Examiner has ignored the limitation of the rejected claims that states that the "preassembly yield stress is at least 20% less than the preassembly yield stress of an identical second electrode except for the absence of said rheological modifier." The '559 patent does not disclose such a characteristic or any evidence that would indicate the second electrode of the disclosed cell having such a characteristic.

The present invention is most useful, although the claims are not limited as such, with respect to a very viscous second electrode due to the particular ingredients used. That is, the preassembly viscosity is at a level that the second electrode would be difficult to process if a rheological modifier were not used. The '559 patent does not disclose such a viscous electrode, and does not disclose that when the phosphate ester is added, the preassembly yield stress is at least 20% less than the preassembly yield stress of an identical second electrode except for the absence of the phosphate ester. That property is not disclosed in the '559 patent and therefore it cannot be an anticipatory reference.

**B. § 102(a) Rejection**

The Examiner has rejected claims 1-11, 15-18, 22, and 34-45 under 35 U.S.C. § 102(a) as being anticipated by PCT Application Publication No. WO 03/73530 ('530).

Again, while the additive of the '530 reference may be similar to the composition disclosed, it is not the same and there is no evidence that the '530 patent composition would have a yield stress less than  $350 \text{ N/m}^2$  and a preassembly viscosity less than  $12 \text{ N}\cdot\text{s/m}^2$  at a  $2 \text{ sec}^{-1}$  shear rate. Again, the Examiner ignores the limitation of the rejected claims that states that the "preassembly yield stress is at least 20% less than the preassembly yield stress of an identical second electrode except for the absence of said rheological modifier." Because the '530 publication does not disclose such a second electrode having these characteristics, the '530 publication cannot be an anticipatory reference.

Applicant, therefore, respectfully requests that the rejections based on 35 U.S.C. § 102 be withdrawn.

#### **IV. § 103 REJECTIONS**

The burden is on the Examiner to establish a prima facie case of obviousness under § 103. To establish a prima facie case of obviousness, the prior art reference or references must teach or suggest all of the claim limitations. *In re Royka*, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

##### **A. § 103(a) Rejection of Claims 12-14**

Claims 12-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Randell et al. or '559 the WO '530 reference. The Examiner argues, without explanation, that it would have been obvious to one of ordinary skill in the art at the time of invention to use at least 60% by weight of zinc in the second electrode. As noted above, there is no evidence that the Randell et al. or WO '530 cells include the characteristics recited in the claims of the instant application, and furthermore the Examiner concedes that neither reference discloses a second electrode, that is an anode, with at least 60% zinc by weight. The invention of these claims would not have been obvious at the time of the invention because the references do not teach all of the limitations of claims 12-14 of the instant application.

##### **B. § 103(a) Rejection of Claims 19-21**

The Examiner has rejected claims 19-21 as being unpatentable over Randell et al. '559 or WO '530 in view of Urry '639. The Examiner argues that because Urry '639 teaches an electrode comprising zinc flakes, its addition to either the Randell et al. '559 patent or the WO '530 reference would have made the invention of claims 19-21 obvious at the time of the

invention. However, as noted above, neither the Randell et al. '559 patent nor the WO '530 reference discloses all of the claimed characteristics of the second electrode. Moreover, one of ordinary skill in the art would not combine the Urry '639 reference with either the Randell et al. '559 patent or the WO '530 reference to achieve a second electrode, as the one claimed in the claims of the instant application. The phosphate esters of both Randell et al. '559 and the WO '530 reference are used as gassing suppressants and not as rheological modifiers. Thus, one of ordinary skill in the art would not have combined the zinc flakes of the Urry '639 reference with either of the two primary references to achieve the low viscosity and yield stress electrode characteristics of the present invention. It would not have been obvious to combine these references to reach the invention of claims 19-21, nor do the references teach all of the limitations of claims 19-21 of the instant application.

**C. § 103(a) Rejection of Claim 23**

Claim 23 has been rejected as being unpatentable over Randell et al. '559 or WO '530 in view of Durkot et al. '378. The Examiner states that the Durkot et al. reference teaches a zinc electrode having a bimodal particle distribution. The Examiner argues that because Durkot et al. '378 teaches zinc electrode having a bimodal particle distribution, its addition to either the Randell et al. '559 patent or the WO '530 reference would have made obvious the electrochemical cell of claim 23 at the time of the invention. Again, neither the Randell et al. '559 patent nor the WO '530 reference discloses all of the claimed characteristics of the second electrode. One of ordinary skill in the art would not combine the Durkot et al. '378 zinc with either the Randell et al. '559 patent or the WO '530 reference cell to achieve an electrochemical cell having a second electrode, as the one claimed of the instant application. The phosphate esters of both Randell et al. '559 and the WO '530 reference are used as gassing suppressants and not as rheological modifiers. Thus, one of ordinary skill in the art would not combine the bimodal zinc distribution of the Durkot et al. '378 reference with either of the two primary references to achieve the low viscosity and yield stress electrode characteristics of the present invention. It would not have been obvious to combine these references, nor do the references teach all of the limitations of claim 23 of the instant application.

**D. § 103(a) Rejection of Claims 24-33**

The Examiner has rejected claims 24-33 under 35 U.S.C. § 103(a) as being unpatentable over Randell et al. '559 or WO '530 in view of the Moore et al. '461 publication. The Examiner states that Moore et al. is directed to a zinc alkaline cell wherein the zinc has a specific value of BET surface area, tap density, KOH adsorption, and D<sub>50</sub>. However, for the same reasons as noted above, the invention of claims 24-33 would not have been obvious at the time of invention. Neither the Randell et al. '559 patent nor the WO '530 reference discloses all of the claimed characteristics of the second electrode. Moreover, one of ordinary skill in the art would not combine the Moore et al. '461 publication with either the Randell et al. '559 patent or the WO '530 reference to achieve a second electrode, as that claimed in the claims of the instant application. One of ordinary skill in the art would not combine the Moore et al. '461 publication cells with the cells of either of the two primary references to achieve the low viscosity and yield stress electrode characteristics of the present invention. It would not have been obvious to combine these references, nor do the references teach all of the limitations of claims 24-33.

Based on all of these reasons, the Applicant respectfully requests that the § 103 rejections be withdrawn.

**V. CONCLUSION**

The Applicant submits that the present application is in condition for allowance, notice of which is respectfully requested.

Respectfully submitted,

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